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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,692	12/11/2001	Arnold G. Wyatt	C474/TEC1157-01	3175

832 7590 09/10/2003

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EXAMINER

DEMAKIS, JAMES A

ART UNIT PAPER NUMBER

2836

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/014,692

Applicant(s)

WYATT ET AL.

Examiner

James A Demakis

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (USPN 4252394) and in view of Hanson et al (USPN 5303560) and in further view of Li (USPN 4547715).

Regarding claims 1,3-4,9-10:

Miller discloses hermetic compressors and problems and safety issues associated with abnormally high over-currents that can melt the conductor pins or terminals and allow hot, high pressure gas and liquid to discharge or vent from the opening in the terminal assembly caused by the melted conductor pin; see Col.1, lines 22-41. Miller does not disclose a method or circuit for sensing current, comparing to a reference, and disconnecting the power to the compressor/motor.

Hanson et al discloses a method and apparatus for the control of refrigeration units which measures or senses the current drawn, compares a current value measured to predetermined window or reference, and de-energizes a control device or switches off the power source or disconnects the current source from the unit or compressor/motor; see Col. 2, lines 2-32.

Art Unit: 2836

It would have obvious to one having ordinary skill in the art at the time of the invention to have modified Miller by the teachings of Hanson et al to monitor current draw of a refrigeration or compressor/motor to provide complete protection and safety.

Regarding claim 2:

A locked-rotor current value or any multiple thereof represents, as it is well known, just another number value of a reference number to a comparator circuit, and as such would have been obvious to one skilled in the art at the time of the invention.

Regarding claims 5-8:

Sensing power is equivalent to sensing current, as it is well known in the art that voltage times current equates to power and that any sensing circuit measuring current would also have a value proportional to power.

Regarding claims 11-13:

Miller and Hanson et al do not disclose a regulator and voltage divider circuitry as part of any control circuits.

However, Li discloses an over-current protection circuit which has regulation properties of Zener diode 54, a voltage divider of resistors 58 and 62, and the comparator function 28.

It would have been obvious to one skilled in the art at the time of the invention to have modified Miller and Hanson by the teachings of Li because this is an implementation of the

Art Unit: 2836

circuit elements necessary to provide over-current protection for the compressor/motor and therefore safety.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Demakis whose telephone number is 703.305.7938.

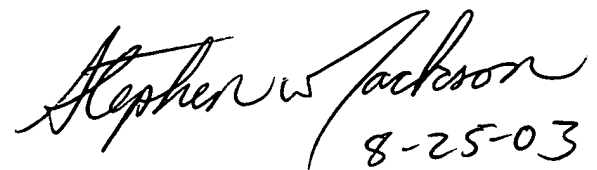
The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703.308.3119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0956.

James A. Demakis

jad

A handwritten signature in black ink that reads "Stephen W. Jackson". Below the signature, the date "8-25-03" is handwritten.

STEPHEN W. JACKSON
PRIMARY EXAMINER